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| 10/540,686 | 01/18/2006 | Anthony Morel | 348162-982560 | 8985 |
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| EXAMINER | | | | |
| PRINCE, JESSICA MARIE | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,686

Applicant(s)

MOREL, ANTHONY

Examiner

JESSICA PRINCE

Art Unit

2482

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9, 11, 12 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6-24-05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS-08)
Paper No(s)/Mail Date 8-27-10

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species II (Fig. 10 and claims 1-6, 9, 11-12, 16 and 18) in the reply filed on 08/27/2010 is acknowledged. Claims 7-8, 10, and 13-14 will be treated as non-elected.

Drawings

2. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-3,6, 9, 11-12, 16, 18 rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicants Admitted Prior Art) in view of Sugiyama et al., US-2001/0026589.

6. Re **claim 1**, AAPA teaches a method for encoding dynamic graphic content, said dynamic graphic content including a plurality of dynamic elements, each of which has a plurality of appearance states, the plurality of states of the plurality of elements lead to a plurality of view, said method comprising steps of: encoding a view (view 1) in all of the plurality of dynamic elements being in a first state ([0006] and fig. 3) encoding remaining views (view Mi) in which at least one of the plurality of dynamic elements being in a state other than the first state ([0006], multiplexing (fig. 3 element multiplex)). AAPA is silent in regards to a reference picture; differential pictures with regards to said reference picture, to form a differential picture; and multiplexing said reference picture and said differential picture sequence together, and providing the resulting signals in video format, as claimed.

7. It should be noted that AAPA does disclose to multiplex the plurality of encoded image views (fig. 3) and the output is a digital video signal (fig. 3).

8. However, Sugiyama teaches (the present invention provides a coding apparatus for coding first pictures, that are set at a predetermined interval to be used as reference pictures for inter-picture prediction of an incoming moving picture, [0020], [0079-0080] and fig. 1, P(I)); encoding a differential picture with regards to said reference picture, to form a differential picture sequence (B picture, fig. 1. It should be noted that B pictures are coded using the difference between the picture and the reference frame, [0003], [0020] and fig. 1); and multiplexing (fig. 1 element 13) said reference picture and said differential picture sequence picture together (a bitstream generated by the variable-length encoder 20 and also a picture rate set by the picture rate setter 15 is multiplexed by the multiplexer 13 with a P(I) picture bitstream generated by the variable length encoder 6, and output through an output terminal, [0090], [0020] and fig. 1 elements 8, 20, 14 and 6), and providing the resulting signals in video format (output bitstream, fig. 1 element 14).

9. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for providing efficient coding of moving pictures.

10. Regarding **claim 2**, AAPA (modified by Sugiyama as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to the method of claim 1, wherein said method implemented in the MPEG encoding scheme.

11. However, Sugiyama teaches where said method implemented in the MPEG encoding scheme (fig. 1 element 1).

12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for providing efficient coding of moving pictures.

13. Regarding **claim 3**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 2. AAPA is silent in regards to wherein said reference picture is an intra-picture.

14. However, Sugiyama teaches the method of claim 2, wherein said reference picture is an intra-picture (Sugiyama teaches a first encoder for to encode the first pictures by intra-picture coding, [0020] and fig. 1 element 2 P(I)) said differential pictures are predicted-pictures (Sugiyama discloses where B-pictures are (bidirectionally predictive coded pictures) are also compressed by coding the differences the pictures and reference preceding or upcoming I- or P-pictures, [0004] and Fig. 1).

15. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for providing efficient coding of moving picture.

16. Regarding **claim 6**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to a method for decoding video signals resulted from the encoding method of claim 1, comprising steps of: decoding said reference pictures; decoding the differential pictures corresponding to the state of dynamic elements that have changed with respect to said reference pictures.

17. However, Sugiyama teaches a method for decoding video signals (fig. 4) resulted from the encoding (bitstream in, fig. 4) method of claim 1, comprising steps of: 1) decoding said reference picture (Sugiyama teaches where the present invention provides a decoding method of decoding a multiplexed bitstream to which a first bitstream of coded first pictures that are set at a predetermined interval, to be used as reference pictures for inter-picture prediction of moving pictures to be coded, [0025], and fig. 4); 2) decoding the differential pictures corresponding to the state of dynamic elements that have changed with respect to said reference picture (a second bitstream of coded second pictures different from the first pictures, coded by inter-picture prediction and decimated in accordance with a coding picture rate and data indicating the picture rate have been multiplexed. The multiplexed bitstream is decoded, thus reproducing moving picture, [0025]).

18. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for efficient coding of moving pictures.

19. Regarding **claim 9**, which recites the encoding device corresponding to the encoding method of claim 1, thus the rejection and analysis made for claim 1 also applies here.

20. Regarding **claim 11**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 9. In addition, AAPA teaches a broadcasting system comprising the graphic encoding device of claim 9 (fig. 1 and fig. 9).

21. Regarding **claim 12**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 9. In addition, AAPA teaches an apparatus for offering video signals comprising the graphic encoding device of claim 9 (see fig. 1. and 3).
22. Regarding **claim 16**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to the method of claim 1 further comprising storing the view in a picture memory.
23. However, Sugiyama teaches the method of claim 1 further comprising storing the view in a picture memory (Sugiyama teaches the B-picture moving-picture video signal has been stored in the picture memory until completion of coding of the preceding P(I) pictures, [0087] and fig. 4 element 8, picture memory. The examiner interprets a view to be a picture).
24. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for efficient coding of moving pictures.
25. Regarding **claim 18**, (AAPA modified by Sugiyama) as a whole teaches everything as claimed above, see claim 9. AAPA is silent in regards to the graphics encoding device of claim 9, further comprising a picture memory that stores the view.
26. However, teaches Sugiyama teaches the graphics encoding device of claim 9 further comprising a picture memory that stores the view (Sugiyama teaches the B-picture moving-picture video signal has been stored in the picture memory until

completion of coding of the preceding P(I) pictures, [0087] and fig. 4 element 8, picture memory).

27. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Sugiyama with AAPA for efficient coding of moving pictures.

28.

29. Claims 4, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicants Admitted Prior Art) in view of Sugiyama et al., US-2001/0026589 and further in view of Official Notice (Well Known Prior Art).

30. Regarding **claim 4**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA is silent in regards to the method of claim 1, wherein said reference picture is cycled no less than every predetermined time period so that the bit rate of the resulting signals is reduced by a pre-selected factor.

31. However, Official Notice is taken that both the concept and advantage for providing the limitation as claimed is notoriously well known and expected in the art, thus it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate with AAPA (modified by Sugiyama) for providing improved image coding.

32. Regarding **claim 15**, AAPA (modified by Sugiyama) as a whole teaches everything as claimed above, see claim 1. AAPA does not explicitly disclose that the picture memory is used for storing a reference picture.

33. However, Official Notice is taken that the concept and benefit for providing the limitation is notoriously well known and expected in the art. It would have been obvious to one of ordinary skill in the art to incorporate storing the reference picture in a memory for use with motion estimation.

34. Regarding **claim 17**, which recites the encoding device corresponding to the encoding method of claim 1, thus the rejection and analysis made for claim 1 also applies here.

35. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Applicants Admitted Prior Art) in view of Sugiyama et al., US-2001/0026589 and further in view of Lin et al., US-2003/0159152,

36. Regarding **claim 5**, Sugiyama is silent in regards to the method of claim 1, further comprising a step of adding pictures indicating "no changes with regards to previous picture" into said differential picture sequence so as to reduce the bit-rate.

37. However, Lin teaches a step of adding pictures indicating "no changes with regards to previous picture" into said differential picture sequence as to reduce the bit-rate (Lin discloses to illustrate an example of the insertion of dummy pictures in a trick mode video signal, attention is once again directed to the GOP 400 in Fig. 4. If all of the B pictures are skipped and pictures P.sub.14 and P.sub.11 are skipped (a playback speed of 5.times), then any number of dummy pictures can be inserted into the trick mode video signal to help lower the bit rate, [0033].

38. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Lin with AAPA (modified by

Sugiyama) for providing improved image quality without exceeding a maximum bit rate limit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA PRINCE whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2482

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/JESSICA PRINCE/

Examiner, Art Unit 2482